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# LAKE HAMILTON NURSERY

## "THE PROGRESSIVE NURSERY"

=1916

LAKE HAMILTON, POLK COUNTY, FLORIDA



View from Hotel Looking West.

### IMPROVEMENT IS THE ORDER OF AGE

He that planteth a tree is the servant of God; He provideth a kindness for many generations, And faces that he hath not seen shall bless him.

-Henry Van Dike.



H. R. MOSNAT
Proprietor of Lake Hamilton
Nurseries.



Six Year Old Boy and Six Months Old Bud.

#### PRODUCING CITRUS NURSERY STOCK

The process of producing a citrus tree thru the nursery is a long and complicated one. Each tree goes thru at least a dozen operations, not including many fertilizings and cultivations. These are (1) planting seed in seed bed. One year of cultivation and fertilizing, possibly some spraying, and irrigation, if there are dry spells, as there usually are. (2) transplanting into the nursery rows. Cultivation and fertilizing for two years. (3) pruning. (4) budding, (5) wrapping, (6) unwrapping, (7) lopping off tops, (8) staking, (9) training to stake. Cultivating and fertilizing for a year or more, (10) cutting tap roots, (11) defoliating and pruning, (12) scrubbing and packing. No wonder that trees cost money to produce. By all means place your orders for trees soon. The increased price of fertilizers may compel the nurserymen to increase their prices for trees.

"Citrus fruits have in modern times become a staple article of diet. The orange, the lemon, the grapefruit and the lime are therefore leading crops, producing literally millions of dollars in wealth annually for the citizens of Uncle Sam's big farm." Editorial in the Country Gentleman, Philadelphia, Pa.,—the oldest agricultural journal in the world. June 26, 1915.

"No man who does not see visions will ever realize any high hopes or undertake any great enterprise." President Woodrow Wilson, Philadelphia address,

May 10, 1915.

It is impossible for me to meet you all, personally, so I have to take the next best way, and try to put into black and white what information I can for

vour assistance.

The little town of Lake Hamilton, Florida, eight miles east of Winter Haven and five miles south of Haines City, is one of the highest locations on the peninsula of south Florida. The "Elevations in Florida," in the Fifth Annual Report of the Florida Geological Survey, pages 81 to 101, was published in 1913, before Lake Hamilton existed as a town. About seven or eight miles south on the same ridge, is Iron Mountain, now called Mountain Lake, which is claimed to be the highest point within sixty miles of the Atlantic ocean between Key West and New Jersey. If this is correct, the second highest point and within a few feet in elevation of Iron Mountain, is at Lake Hamilton and directly adjoins my twenty acre nursery, just east of and adjoining the townsite of Lake Hamilton. This high point is on a ten acres adjoining my main nursery, and from it there is a splendid view to the west of Lake Hamilton, and a number of smaller lakes, over one hundred feet

The town of Lake Hamilton is located in the heart of the largest body of uniformly excellent citrus land in the United States. This is the grapefruit section par excellence. This is the most beautiful spot in Florida, in the opinion of a number of people

competent to judge.

Without fear of contradiction, I can state that my citrus nursery is growing on the highest ground of any citrus nursery in Florida. This is very important, as such land produces the best root system

in the trees.

Citrus nursery trees can be grown more quickly and cheaply on lower lands, but I believe that trees grown on the highest ground have the most vigor, vitality and vim and better root systems, and the root system is vital.

The land is rolling pine land, with yellow subsoil. "Hammock land is so rich that nursery trees are never grown in it, because they develop top at the expense of root." Country Gentleman, Feb. 27, 1915.

My trees are not forced in any way, either by irrigation, or with stimulating fertilizers. I have never used an ounce of nitrate of soda except what was in the fertilizers as put up by the most reliable manufacturers in their standard brands.

There is no need of making a very elaborate account of citrus culture and technicalities, as all this is much better covered than it can be elsewhere, in such books as Prof. Hume's "Citrus Fruits and Their Culture." Besides, the purchaser in the end pays for such elaborate and expensive catalogs. I prefer but more value into the trees and less cost into a catolog.

#### PROFITS IN CITRUS FRUIT GROWING

The first question is, does it pay? Admittedly, the citrus fruit industry is a fortune making business, when handled in a businesslike way, such as any

business should be conducted.

The citrus fruit industry in Florida is soon to see the most profitable period ever known, I fully believe. My reasons for this are the steady growth of the Florida Citrus Exchange, whereby the methods and advantages of co-operation in selling are employed. Also the decision of the United States Supreme Court recently declaring the constitutionality of the Florida immature or "green fruit" law. Besides this, the United States Pure Food Commission has made known its intention of active enforcement of the pure food laws as to shipments of unripe citrus fruits from Florida in the future.

The shipment of green, sour fruit too early from Florida has cost citrus growers of Florida into the millions of dollars in damages to markets. That is

now in a good way to cease.

The Florida Citrus Exchange is pushing out into new markets and constantly adopting improved packing and selling methods. Better distribution of citrus fruits is one of the greatest needs at the present time. That is being accomplished by the Florida Citrus Exchange. This steadies the markets and prices, to the great profit of the grower.

There is no danger of over-production. There are actually millions of people in the United States alone who can afford to use grapefruit, but who have never tasted one. Last season grapefruit sold at low prices, wholesale and retail, and as a result, many people tried this fruit for the first, but not for the last time. Thus, even the low prices will ultimately profit the grower by enlarging the markets. This is the best sort of direct-to-the-consumer advertis-

Besides, the new process of preserving grapefruit juice recently announced by the United States Department of Agriculture, will be a great help, as it creates an outlet for the culls and drops in grapefruit, formerly wholly wasted. In a few years bottled grapefruit juice should be as much a staple article as grape juice is today. Many physicians already are prescribing grapefruit juice in many cases, and when the juice can be obtained at any time, all ready for use, the consumption will increase by leaps and bounds.

Another thing that will help is the coming into bearing of the Lue Gim Gong orange, which is claimed will hang on the trees in good juice for months, even years, after it is fully ripe. Florida has not had oranges for shipment during the summer. This new orange will fill in that gap, and make possible Florida oranges ready for market the whole

year thru.

This and other new and improved varieties of citrus fruits will greatly increase the profits of the

growers of them.

It is my plan to introduce the very best new sorts of citrus fruits, if after strict trial and due examination they are found to be worthy and well qualified.



Triplet Oaks, near the Corner of my Nursery on the Top of the Ridge.

#### SOILS FOR CITRUS TREES

"There are flat-woods or low lying lands, covered with saw palmetto, and having hardpan two to five feet from the surface—not considered best for citrus, yet in some places producing the brightest, thinnest skinned and prettiest fruit in Florida. There are medium lands, higher up, with some pines and palmettos, but no hardpan, which are better for general purposes. Then come Florida hammock soils, lying still higher up, having no hardpan, but sometimes situated on rock. Hammock land is so rich that nursery trees are never grown in it, because they develop top at the expense of root.

"Still higher up lie the rolling pine lands, with yellow subsoil, considered especially fine for citrus. Such soils when good for citrus are almost always marked in a peculiar way with little mounds of tawny subsoil dotted over their gray sand surfaces. These mounds are made by the Florida salamander—

part rabbit, part rat, part mole.
"The late Doctor Inman, one of Florida's great men, had a saying about citrus soils that makes a fairly good rule for selection: 'No matter where you locate, pick land with plenty of good big trees upon it. For it is certain that if God cannot raise good crops on a piece of land, you will not succeed.'

"Yet today, far down on the East Coast, new citrus groves are being set on land that is little more than hare rock. Holes for the trees are being blasted, and it is said that results in this section are remarkable." Country Gentleman, February 27, 1915.

The sour orange roots are used on the lower lands, and rough lemon root generally on the rolling pine lands. Grapefruit roots are used also on the better grades of more fertile rolling pine lands. I will bud grapefruit roots to order. One of the finest groves in this section, nearly two hundred acres, is all on grapefruit roots. I expect to see grapefruit roots used more in the future.

#### DISTANCE FOR PLANTING

Don't plant your trees too close. Such a grove becomes a poor fruiter, and it also encourages the development of various fungus diseases. But to get the most out of the ground, plant the trees close enough.

One of the best arrangements is 18 by 30 feet. This takes 77 trees on one acre, or 396 trees on five

acres, or 792 trees on ten acres.

This distance is equally well suited to all varieties of oranges and grapefruit. It gives plenty of room between the rows for cultivation, and for power sprayers and for fruit to be hauled out, fertilizer hauled in, etc.

Commercial groves of limes should be planted 15 by 20 feet, or 145 trees to the acre. Kumquats should be 12 by 18 feet, or 201 trees per acre. Lemons should be set 18 by 25 feet, or 96 trees per acre.

Trees set 20 by 20 feet, require 108 per acre; 25 by 25, 69 per acre; 30 by 25, 59 per acre; 30 by 20, 71

per acre; 30 by 30, 48 per acre.

Where road or highway is taken off the land, as is usually the case, the proper allowance and reduction must be made for it.

#### NO REAL ESTATE CONNECTIONS

I am one of the very few citrus nurserymen in Florida who has no connection whatever with any real estate, land or promotion or colonization firm or concern. I have no such connection direct or indirect. Most nurserymen in Florida have. I have no land for sale, except the twenty acres I have in nursery, which I will set to grove, as I never grow but one crop of nursery stock on the same ground. I will cut this into two ten acre tracts, if desired, and sell at a reasonable price, including care for several years, and make reasonable terms. If you are interested in this, write me.

Some land sellers receive secret commissions from

the nursery they boost.

#### MY METHOD OF PRODUCING CITRUS TREES

To grow trees, I begin with the seed, and use only seed of sour orange, rough lemon or grapefruit grown from trees standing in cultivated groves. These produce much better seed than the wild trees.

The seeds are not dried out before planting, but are kept "in the jelly." This preserves all the vital-



Spineless Cactus, One Year Old, Growing in My Yard

ity. This seed is planted in seed beds, where the

little trees grow a year.

Then the seed bed stock is set in the nursery, in rows about three and a half to four feet apart, and a foot or so apart in the rows. There the trees are cultivated and cared for for about two years, when they are ready to bud.

After the budding is done, the trees stand in the nursery for one to two years, before being size to sell. Thus from the seed to the finished tree ready to

set in your grove, it takes four or five years.

The buds are carefully trained to stakes, to make them straight. We tie the buds to these stakes with raffia, or cloth strips, to prevent any cutting of the buds. Strings will cut sometimes and thus injure the bark of the trees.

#### SELECTION OF BUDWOOD

Practically all of my budwood, I cut myself, and take the greatest care to get them from the best bearing trees. I have made a careful study of the work of the United States Department of Agriculture in the matter of bud selection and the improvement of citrus trees in this way. I fully realize the importance of the most careful bud selection.

Not only do I cut all my own bud wood, but I have cut many thousands of buds for others, among them nurserymen who are exceedingly careful in this

matter and rightfully so.

This is a splendid citrus fruit section, although rather new, but there are number of splendid older groves within a few miles, where I have carefully studied the various varieties and individual trees from which I secure budwood.

#### DIGGING AND PACKING

All citrus nurseries, as far as I know, in defoliating the trees for digging, take a heavy glove, and strip down the trunk of the tree, to remove the leaves. This very often injures the trees by tearing out chunks of bark, making wounds, which must be healed by the trees, when they need all their strength to recover from the shock of transplanting and destruction of roots, branches and foliage, which have to be replaced, and besides, the buds are also often in this way destroyed. Citrus trees are well supplied with adventitious buds, but such rough treatment is wholly unnecessary. I always see to it that my trees are defoliated by the leaves being clipped off. Thus the buds are preserved without any injury whatever. It takes only a few moments longer, and it adds greatly to the strength of the tree. This is only one detail showing the care with which my trees are grown, and handled.

As much of the large tap root is saved as possible, and on this high sandy land, splendid root sys-

tems are produced.

#### "CLEAN AS A WHISTLE"

#### SAID THE INSPECTOR

There are no citrus pests or diseases here. I have never seen the whitefly. When the nursery inspector had carefuly examined all my nursery stock, he said, "Everything is as clean as a whistle." I do not need to do anything more than defoliate the trees, to ship them, but to be doubly sure, I do scrub them in whale oil soap solution, mixed according to the state nursery inspector's rules.

I have never had to spray my nursery stock.

There is no whitefly in this section.

#### VARIETIES

"Be not the first by whom the new is tried, nor yet the last to lay the old aside," is a very good rule

for the varieties of citrus trees.

Prof. Hume lists forty-nine distinct varieties of sweet oranges, under seventy-one names. His book was published in 1903 and does not include the Lue Gim Gong orange, which is officially named the Lue orange, (see United States Department of Agriculture Year Book, 1913, pages 121-2 and plate XIII.) or the Foster Grapefruit, or the Gold Bond Grapefruit, the Sampson Tangelo, the Oneco Tangerine, and other new sorts. Prof. Hume lists seventeen varieties of Pomelos or grapefruit, under 28 names. Besides these, he lists many varieties of lemons, limes, shaddocks, twenty-two mandarins, and other citrus fruits.

In putting out a commercial grove, do not set too many different sorts. Two or three varieties each of oranges and grapefruit are plenty, in commercial

plantings, especially of five to ten acres.

It is important that localities grow sufficient quantities of the same varieties so that car load shipments can be made. This applies to limes and lemons, if the best returns are to be secured. Get your neighbors to plant sufficient of the same varieties you set out, to make it possible to ship in carload lots, unless you are making your own plantings sufficiently extensive to do it. It will be the latter course that will pay you the best, if you are in position to do it.

#### FREE ADVICE SERVICE

I will gladly give you without charge, the best advice that my own experience has indicated as correct. Write me what sort of land you have, and your plans and ideas. There are a good many practical points that even the most elaborate catalogs and books on citrus trees fail to explain or discuss.

HOW THE WAR AFFECTS THE FARMER, in Country Gentleman, Sept. 12, 1914, page 1539, by Roger W. Babson, the leading authority on business conditions in the United States. On the probable influence of the European conflict upon our agricul-

ture, he says:

"The present time is a golden opportunity for the growers of citrus fruits, such as oranges, lemons, and grapefruit, particularly the first two mentioned. A few years ago it was thought that the best oranges and lemons came from the Mediterranean countries, but the concerted and co-operative efforts of the growers of citrus fruits have largely driven that idea out of the heads of the American public, although a large quantity of foreign lemons is still used in this country. To drive the foreigner entirely from the American market all that is needed now is to produce in this country oranges and lemons in sufficient quantities to meet consumption demands."



View of Nursery from the Triplet Oaks, on the Top of the Ridge

Florida was never so well fixed to meet the demand for citrus fruits as at this time. The crop soon to be put on the market is large and of good quality. The Florida Citrus Exchange is spending twice the money ever spent before in advertising Florida citrus fruits. The new Lue Gim Gong orange is beginning to come into bearing so that the Florida ripe high quality oranges can be put in the market every day in the year.

It is admitted that Florida produces the highest quality of citrus fruits grown in the United States. The nearness to the largest markets gives Florida still added advantages. There is a great opportunity for lemon and lime growing in Florida. The foreigners simply will not pack their fruit satisfactorily. Mr. Babson's article is so conservative that it has more weight than it otherwise would have.

#### PRICES

I am at a disadvantage in the matter of prices, as citrus trees are sold by the size of the trunk, although the age and quality and size of the root is more important. My high, sandy land produces the very best kind of roots, while the soil on which nursery stock is usually grown, because it is quicker and cheaper, produces tops at the expense of roots.

Still my prices compare favorably with those of

other citrus nurseries in Florida.

Even my very finest, new varieties, are priced at less than the ordinary prices for standard varieties in California.

#### PLANTING

Citrus trees are evergreens and can be planted at any time of year, but the best season is during December to March, when the trees are most dormant, and during the rainy season in July. But during the last few years the rainy season has not been as marked as in some years.

#### ORDER EARLY

Place your orders for trees early, so as to be sure not to be disappointed. Shipments can be made at any time you say. It is none too soon now to order for next year's delivery. Last season I could not fill several orders for 1,000 trees of a kind, besides other smaller orders, as these came in too late; so order early.

#### VARIETIES

My list of varieties is very complete, and includes the very best sorts for Florida planting. The time is fast coming when citrus fruits will be sold by variety name, just as apples have been sold for years. A beginning has already been made in this direction with Florida oranges. Then the growers who have the best varieties will get the best prices as they should.

This season I am introducing five new varieties of citrus fruits, all of special merit. These are the SOLID GOLD Grapefruit, the IMPERIAL Grapefruit, the DILLSAVER SWEET Orange, the SEEDLESS VALENCIA Orange and the FLORIDA LATE

NAVEL Orange.

Besides the above handful of splendid novelties, I have the best new introductions of others, such as the Foster Grapefruit, the Sampson Tangelo, the Lue Gim Gong Orange, the Surprise Navel Orange, Connor's Prolific Grapefruit, Connor's Seedless Orange, Gillett's Late Grapefruit, Inman Grapefruit, Gold Bond Grapefruit, and others.

In addition I have some older sorts of merit, which are not well known, as the Lamb Summer Orange, which is a sure enough early orange, being ripe in September, long before the Parson Brown, the Citron, the Bittersweet, Mammoth and Pink Shaddocks, Ponderosa Lemon, and quite a complete assortment of the Mandarin group. Many of these are difficult to obtain.

#### GRAPEFRUIT OR POMELO

The SOLID GOLD Grapefruit is the most sensational introduction in citrus fruits for years. The grapefruit has a highly colored rind, as deep in color, nearly, as a Pineapple Orange, and the flesh is also of a deep, rich color, much like a Pineapple Orange,

but with pink especially around the edges flavor fully supports its fine looks. Our little boy, aged six years, and his little sister, aged four, will eat no other grapefruit, while any of these are to be had. They tease me to peel a graperruit, then divide up the segments and remove all the skin or sepetua, leaving just the masses of juice sacks. The SOLID GOLD mixed with IMPERIAL make a very attractive dish full, but the little folks pick out every piece of the SOLID GOLD, before touching even so good a grapefruit as the IMPERIAL, which has no su-perior in quality among green fleshed grapefruit, and very few if any equals. The SOLID GOLD looks ripe, and we all know that fruit sells on its looks, largely, and in this fruit, the quality well supports its fine looks.

Experts say that as soon as known, the SOLID GOLD Grapefruit will be as popular as a grapefruit as the Lue Gim Gong Orange is as an orange today.

Many people who eat grapefruit think that the fruit is not ripe because of its light colored rind and flesh, characteristic of the grapefruit, and also because of its peculiar flavor, which is not always appreciated on first tasting, like olives. But the SOLID GOLD looks ripe and tastes ripe, while still having the characteristic grapefruit flavor.

Most grown folks agree with our little boy and girl as to the very high quality of this fruit. It has a flavor of its own, while having the true grapefruit

The tree is a very vigorous grower. The fruit is ripe for the holidays. It is a very good shipper, too. I showed a sample of the SOLID GOLD to my friend Simon Humfeld, the florist, of Muncie, Ind., when he was here last winter, and before I was within a dozen feet of him, he said, "Why, where did you get that beautiful thing." After he had sampled it, he said, "Just wait till those strike the New York market. They will create a commotion."

I sent a sample to my friend, Henry Field, of Shenandoah, Iowa, the seedsman, and he wrote that they were the finest grapefruit he had ever seen or tasted, and that if there is any demand in Florida for new varieties, this one will certainly make a hit.

One expert in Florida offered to sell 5,000 trees of this new grapefruit for me at \$2.00 each this season, but I will not have any such quantity this year.

The original tree is vigorous and a good bearer,

and the fruits do not pod on the tree.

I think that it is perhaps a cross between an orange and grapefruit with the latter predominating. Such a cross has often been attempted, but was never successful. But we know that the navel orange is a wild, natural variation from Brazil, and that many very valuable fruits and plants are the result of accidental crosses, whose worth has been appreciated, and thus the improvement propogated.

I believe that this variety of grapefruit opens up a new era in grapefruit production in Florida. About all the grapefruit in the United States are grown in Florida. This new grapefruit should add thousands of dollars to the profits of Florida citrus fruit growers. I have the entire stock of this very valuable new fruit, and it cannot be obtained elsewhere.

The FLORIDA GROWER, after sampling the fruit a couple of times, has this to say about SOLID GOLD Grapefruit, and the Grower tells "The Truth About Florida" and has the utmost confidence of those who know it:

"He who believes in merit will believe in the future of Solid Gold Grapefruit. It will set the stand-

ard in the markets of the future.

It needs no close student of affairs in the fruit world to know that half the battle is in the appearance of the fruit. Appearance is a first impression. It sells the first lot.

"Add to this quality, and it insures repeat sales, and repeat sales insures a market demand, and market demand spells profit to the grower. Is that not

simple and logical?

"Solid Gold is a distinct variety of grapefruit, easily distinguished by outside and inside appearance, and by its flavor, it will win its way.

"A few of the distinguishing features are highly colored rind-almost a deep orange; a flesh that is golden pink wholly different and distinct from any other grapefruit; a flavor that is truly a grapefruit

flavor, yet one that lingers and is not soon forgotten."

The IMPERIAL Grapefruit is a splendid new sort, of my own introduction. Like the SOLID GOLD, it is just the right size to command the best prices. The market does not want too large a sized grapefruit. The IMPERIAL is a very handsome fruit, with a very smooth, thin rind, and very close grained flesh, something like a Marsh Seedless. The quality is preferred by most people to any other green fleshed grapefruit. The fruits are flattened at top and bottom, thus making them easier to handle when cut. They will not roll about on the plate. Also, they are the heaviest grapefruit I know of, and will pack heavier boxes than any other sort, and the market always seems to want the heaviest fruit it can get, because the heavy fruit has the most juice.

I have the entire stock of this variety and it cannot be secured from anyone else. It matures for the holiday trade.

The FOSTER Grapefruit is a very much advertised new sort. The flesh is pink. It is a sport of the Walters, and of good size and quality. My stock is direct from the introducers. They charge \$3.50 per tree. The quality and all is about like Walters, ex-

cept that the flesh is light pink.

The MARSH SEEDLESS Grapefruit is a very fine variety. It usually has no seeds, but sometimes a fruit has a seed or two. The flesh is very fine grained and good quality. It is a late variety, ripening in February to March. With me, this variety is a good bearer, and a regular bearer. It appears to carry a good crop every season, and does not vary much from year to year as to its crop, like some varieties.

The DUNCAN Grapefruit is of splendid quality, and as Prof. Hume says, it "cannot be too highly

recommended for general planting."
The SILVER CLUSTER is a late grapefruit, and a bearer. Quality of the fruit very good. It is one of the very best late sorts.

The GOLD BOND Grapefruit is a new variety, that is very well thought of. It does not pod on the trees, that is cluster the fruits, and it is a reliable annual bearer. The fruit is of good quality and size.

The EXCELSIOR is a very late grapefruit, and a

The EXCELSIOR is a very late graperruit, and a vigorous grower. Is a heavy bearer, too. Quality good.

The INMAN LATE Grapefruit is named in honor of the late Dr. Inman of Florence Villa, Florida. It is a new variety that is very highly recommended as extra late.

The GILLETT'S LATE Grapefruit is a vigorous grower. It is also a new sort. Ripens about February and hangs on as long as June. It is an early and

prolific bearer.

The FLORIDA STANDARD Grapefruit is the same as is known as the Indian River. It is one of the best varieties and has been grown for many years. Quality is excellent. A vigorous grower.

The McCARTHY Grapefruit is one of the newer varieties. It is a late fruit. The fruit is waxy yellow in color. Packs 48 to 64 to the box. The fruit does not pod on the tree. It is vigorous and prolific.

Is healthy and of fine quality fruit.

CONNOR'S PROLIFIC Grapefruit is the very earliest variety of high quality, but it holds on until late in the season. Each fruit is on a separate stem. Is prolific. My stock is direct from the introducer. One of the most profitable varieties. Produces nearly all perfect fruits. The fruit colors by the last of September, and it is claimed by the introducer that the fruit remains on the tree in good condition as late as August.

The WALTERS Grapefruit is one of the well known varieties. It will average about 54 to the box. Ripens in December. Vigorous and of fine quality.

#### ORANGES

The orange that is attracting the most attention now is the LUE GIM GONG. It is claimed that the fruit remains in good condition on the tree for as long as three years! If this is only half correct, it is plenty, as it will enable Florida to ship oranges every month in the year and thus hold the markets against all competition, which quality gives to Florida fruits when in season. Fortunately, there are already trees of this sort in bearing here. The variety is a vigorous grower, and bears early. It is being very largely planted for a late variety, and it is an early variety as well.

The DILLSAVER SWEET Orange is the sweetest orange I have been able to discover. I have been eating fruit from this tree for three seasons, and it is certainly an excellent quality. It is even better than the Pineapple oranges growing nearby. The Pineapple is the standard of perfection for Florida oranges. The Dillsaver Sweet ripens just before the Pineapple orange, that is in time for the holidays, and is of about the same size. Mr. W. S. Dillsaver, of Chicago, Ill., called my attention to this tree, a seedling in a grove near here. He is planting this new orange in his new forty-acre grove near here, this being his second grove at Lake Hamilton. People want sweet oranges, and here is the sweetest one, and it ripens at the most profitable season, is prolific bearer, acceptable size, and all that goes to make a variety that will be profitable. This variety

is now offered for the first time, and the number of trees is very limited. It cannot be obtained elsewhere.

The VALENCIA Orange needed only one thing to be as perfect an orange as need be found, and that is no seeds, and I have found it. The absence of seeds means that the fruit will carry on the tree for two or three months longer, in full juice and perfect shipping condition. Like the Marsh Seedless Grapefruit, and the Conner's Seedless Orange, the Seedless Valencia will sometimes have a seed or two, but most of the fruits are wholly without seeds. It is solid clear thru. This new variety, in connection with Conner's Seedless Orange, will supply seedless oranges all season, as Conner's Seedless is an early

orange.

Navel oranges have been a disappointment in Florida, so go a little slow on them. But there are now two navel oranges that are successful in Florida, these being the SURPRISE NAVEL, an early sort, and my new FLORIDA LATE NAVEL Orange. This latter is as late as a Valencia Late Orange. It runs about the same size fruit as good sized Valencias. It is a prolific bearer and a vigorous tree. Mr. Alfred Burbank, brother of Luther Burbank, and himself noted as a wizard in agriculture, at a meeting of the Chamber of Commerce of St. Augustine, Florida, said that the finest navel oranges he ever ate were grown in Florida, and he is a California man. He has bought over 1,000 acres near the "An-cient City" and has located there. The trouble with navel oranges in Florida has been that they grew too large, or were shy bearers, or were "raggy" too soon. All these have been avoided with the Surprise and the new Florida Late Navels. Looks now as if Florida can ship a better quality of navel orange than California, and in that state the whole industry is built upon the navel orange. California produces nearly twice as much citrus fruit annually as Florida, and grows almost no grapefruit. There the production of lemons to oranges is about one to five. Florida does not produce enough lemons for local consumption.

If you want a sure enough extra early orange, for home use especially, the LAMB'S SUMMER Orange is that orange. It is a rare sort, but I have some

of them.

The PINEAPPLE Orange is the standard of quality for Florida. It is a mid-season variety. Its name comes from the shape of the original tree. This is one of the great sorts, and is being planted very extensively.

The VALENCIA Orange is one of the great late sorts of oranges. It is claimed by authorities to be the same as the Tardiff and Hart's Late. (See Hume, Citrus Fruits and Their Culture, pages 89-90.)

The CONNER'S SEEDLESS Orange has already been mentioned. It is an early sort of best quality. My stock of this is direct from the introducer.

The RUBY BLOOD Orange is the best of its class, but does not seem to be planted as much as formerly, although of fine quality.

The SAMPSON TANGELO is a cross between the grapefruit and tangerine, and of very fine quality. It has been introduced only a few seasons. It runs 80 to 126 to the box.



Eucalyptus Robusta, Two Years Old, on High, Sandy Soil.

#### LEMONS AND LIMES

The two leading sorts of LIMES are the MEXI-CAN, FLORIDA or KEY LIME, which is small, heavy and prolific, very acid and of distinct flavor. The other is the PERSIAN, SEEDLESS or TAHITI. This is a larger fruit. It should be picked before quite ripe, as sometimes it sunscalds on the tree. Both these sorts are being extensively planted. Limes come into bearing very quickly, and pay well. The local market is hardly well supplied in Florida as yet with limes. They will do well with very little care, after once getting well started. They should not have too much ammonia in the fertilizer or soil. Limes will do well on soil that is not any too good. The only trouble is that limes are rather tender to cold. Limes will bear as many as 10,000 fruits during one season. A barrel takes 1,200 to 1,500 limes, and the price is seldom less than \$10 a barrel. There is big money and quick money in limes. Lime juice is used as a successful cure for rheumatism.

Florida does not produce enough lemons for home use. The juice of the lemon is wholly different from lime juice. I have a nice strain of the VILLA FRANKA LEMON. You should plant some for home use at least. To cure lemons for home use, take a barrel, put in matured lemons clipped from the tree, with two inch layers of dry saw dust, so that the lemons do not touch the barrel or one another. Placed in layers, a barrel will hold about 100 lemons. In a short time they will color up and be far superior in quality to imported lemons. Try it.

The statement is made that McGill University at Montreal has been experimenting with the use of

lime juice for the prevention of typhoid fever. It appears that in a recent test one tablespoon of lime juice added to a tumbler of water killed typhoid germs in from thirteen to fifteen minutes. If this fact were given general publicity, the market for limes, great as it is even now, would be still more extensive in its demands for this valuable Florida product.

Growers of limes on the Florida Keys have received top-notch prices for them. South Florida fruit men are becoming more and more interested in the growing of limes, and they find that the product is always a most profitable one.

If the experiments said to have been carried on by McGill University are actually true, the South Florida product will undoubtedly be very much more in demand than heretofore.—St. Augustine Record.

## THE MANDARIN OR KID GLOVE ORANGE GROUP

Of several times that many of this group of oranges, only four or five are grown extensively. These are in order of ripening, the SATSUMA, MANDARIN, DANCY TANGERINE, and KING TANGERINE. I think that the Mandarin should be planted more extensively, and I have a fine strain of them.

The KUMQUAT usually planted is the oblong or Nagami. The tree is ornamental and bears good fruit also, about the size of a large plum, and with sweet rind and acid flesh. They make fine preserves and are sold in the markets more and more, specially during the holidays.

I have seedlings of the PINK SHADDOCK and also of the BITTER SWEET, both rare, for 25 cents each.

I have also some of the CITRON of commerce, at grapefruit prices.



Our Home in Lake Hamilton and Part of small nursery. Hotel in background.

CITRUS PRICE LIST

Solid Gold, Imperial and Foster Grapefruit, each

Dillsaver Sweet, Florida Late Navel, and Seedless

Valencia orange, \$2.00.

All other Grapefruit, Tangelo, Tangerines, Mandarins, Satsumas, King, Lue Gim Gong orange and Kumquat, one year old buds on four year old rough lemon roots:

Each 10 100 1000

3 to 4 foot size, about ½
inch caliper \_\_\_\_\_\_ \$.75 7.00 60.00 500.00

4 to 5 foot size, about %
inch caliper \_\_\_\_\_ 1.00 9.00 80.00 750.00

5 to 7 foot size, about ¾

to 1 inch caliper \_\_\_\_ 1.80 12.50 110.00 1000.00

All other Oranges. Limes, Lemons:

One year old buds on four year old rough lemon

100 1000 \_Each 10 roots \_ 3 to 4 foot size, about ½ 420.00 inch caliper \_\_\_\_\_ \$.55 5.00 45.004 to 5 foot size, about \% inch caliper \_\_\_\_\_ .756.5060.00 550.00 5 to 7 foot size, about 34

to 1 inch caliper \_\_\_\_ .85 7.50 70.00 650.00

All of the above on Rough Lemon Roots.

Marsh Seedless and Duncan Grapefruit and Valencia and Lue Gim Gong Orange on Sour Orange

Roots, same prices as above.

Note—The Mandarin group, Kumquats and Limes are of more slender growth and will not caliper as much as grapefruit and oranges of the same height. Then some seasons the growth is different on ac count of weather. So I reserve the right to sell either by height or by caliper.

I can supply Smaller Sizes in citrus nursery stock, the 1 to 2 and 2 to 3 foot grades, at lower prices, but I do not believe it pays to set these small sizes.

I will bud any of these varieties on grapefruit roots to order. I make a specialty of budding to order. Write me about it.

Everyone who lives in the citrus fruit section of Florida should have a home, as well as a grove. It pays in many ways—in satisfaction and solid comfort, and in the actual increase in money value to the property. Therefore grow other sorts of fruits so as to have a variety for home use at least. There are many such fruits that do well here. Also, have a lawn and put out some nowers, ornamentals, shrubs, shade trees, vines and such. I have listed a few of the very best of these other fruits, etc., here, of the kinds that have been tested and found the most satisfactory here.

Prices on the following, a dozen at the price of

ten. Write for prices on quantities.

#### TROPICAL AND OTHER FRUITS

LOQUAT or Japan Plum. A valuable fruit. Yellow, plum-shaped and bear in large clusters. Ripens in winter or spring. Delicious flavor. Very fine for preserving. It should be grown extensively both for home markets and for shipping. The tree is somewhat sensitive to cold, and should be grown in sheltered situations. The tree is a handsome evergreen and resembles somewhat the northern buckeye tree. It is worthy to be grown simply as an ornamental tree, whether in pots indoors or outside. Shipped in pots, 10 cents each.

MULBERRY. A very useful tree for shade, and bears enormous quantities of fruit. A very rapid growing tree. Fruit is especially useful for feeding poultry and swine. This is the large, black sort, which is best for Florida. 1 to 2 foot size, 15 cents;

2 to 4 foot, 20 cents; 4 to 6 foot, 30 cents.

FIG. One of the most delicious of all fruits Grows fast and bears usually the second year. The demand for preserved figs far exceeds the supply. Does well with very little care. Should not be cultivated much, as the roots grow too near the surface. Should be well mulched with stones or brickbats. Old tin cans and other rubbish can be used to advantage around fig trees. The variety we have is a large, yellow, very prolific sort. 1 to 2 foot, 20 cents; 2 to 3 foot, 30 cents.

GUÁVA. Bears enormous quantities of very fine fruit, as large as peaches. With cream and sugar they are equal to peaches. Are also used for making preserves, jelly and marmalade. Guavas should be grown more. They require very little care, and bear quickly. This variety is the large, white sort. The flesh is pink. On cooking, it turns to a very rich red color. Shipped in pots, 15 cents each.

PAPAW, or Melon Fruit. Carcia Papaya. A tree that grows to be 50 feet tall, and is very tropical and decorative. Looks a little like a cocoanut palm, especially when full of fruit, but of course it grows where the cocoanut does not grow, as it does not generally do well or bear at any great distance from salt water. The leaves or fruit of the Papaya wrapped around tough meat will make it more tender. It is also used in medicine. It is extensively used in the tropics. Some people like the fruits, which are somewhat the size and shape of a cantaloupe, and have rich, salmon flesh, but they are rather too sweetish to suit me. Shipped in pots, 20 cents each. As the plants are male and female, you should have at least four or five. Only one male tree is needed for several female trees, but it is impossible to distinguish the seedling trees as to sex before they bear. Hard to make them grow unless shipped in pots, which is the way I send them out. Small size, 15 cents, 1 to 11/2 foot size, 25 cents; 2 to 3 foot size, 35 cents; 3 to 4 foot size, 50 cents.

The MANGO has been called the apple of the tropics. A very important fruit for South Florida. Should be planted in protected locations. Mango fruit is delicious sliced like peaches. The fruit is also used in various ways cooked, as preserved, canned, marmalade, chutney, pickled, etc. The tree

well deserves to be grown as an ornament, even if it did not bear prolificly of fine fruit. The young twigs have handsome red foliage. Rapid growing.

Shipped in pots, 20 cents each.

SURINAM CHERRY. A large shrub. bright red, small fruits, of agreeable acid flavor. Used also for jelly. If given care, it will bear two immense crops a year. In the north, it makes a fine subject for tubs. Fruit and foliage very attractive. Shipped in pots. 10 cents each.

BANANA. This tropical fruit grows well on high as well as low land. I have the Hart's Choice or Lady Finger variety. The fruit is of the best quality. 25 cents each.

PINEAPPLE. Is grown on the poorest land. I have the Smooth Cayenne, which is the only sort without spines on the leaves. This is a fine variety for the home garden, and is also used extensively for shipping and canning. It bears nearly the whole

year thru. 10 cents each.

SPINELESS CACTUS. Used for fruits, which are like a fig or peach, and very fine, either raw or cooked. Also used for forage for live stock. I have about a dozen sorts of the best varieties for Florida. An assortment of these, \$5 per dozen. These are all named sorts, such as Banana, Eldorado, Opaline, Quellota, Special, etc., which sell as high as \$3 for a single slab. My stock is direct from Burbank, and the best growers in California.

FLOWERS AND ORNAMENTALS OLEANDER. A rapid growing shrub, well known. Does very well in Florida. I have them in single

white, single pink, double red, etc. 10 cents each. BRYOPHYLLUM pinuatum. An odd and rapid growing succulent. Leaves large and fleshy. Blooms are reddish bronze and green, bladder shaped. Very curious. If a leaf is pinned on the wall, a new plant is formed, roots and all, at the notches in the leaf, without watering. A strange and interesting plant. 10 cents each.

CRAPE MYRTLE. This is the great flowering shrub for the south. I have the pink, carmine and purple colors. 10 cents each, either color. White,

25 cents each.

HYBISCUS. This is another splendid shrub for the south. I have the single pink, double red, etc. Any color, 10 cents each.

LANTANA. I have several varieties of this, such as the pink, variegated, etc., and also the very handsome lavender colored trailing sort, which has fineleaved foliage. Any variety 10 cents each. Very rapid growers.

ALLAMANDA. This is a fine shrub which everyone should have. It has large trumpet-shaped bright yellow blooms, 3 to 4 inches across. 25 cents each.

MEXICAN FIRE PLANT. A curious variety of the cactus family. 10 cents.

ASPARAGUS plumosus, or asparagus fern. Very fine, fernlike, climbing plant, especially fine for bouquets and all cut flower work. Lasts days without water. May be grown out doors in Florida. A fine pot plant for any climate. 10 cents each.

ASPARAGUS sprengeri, or rice fern. A beautiful plant for baskets or on a pedestal, so long that the shoots may hang. Of easy culture. 10 cents each.

CAPE JESSAMINE. An evergreen shrub, with glossy, broad leaved foliage. Snow white flowers which are exceedingly fragrant. 15 cents each.

A VINE, that I think is some sort of a Jessamine. Has quantities of yellow blooms in the fall. The seeds are orange balls, quite ornamental. A vigorous grower. 10 cents each.

POINSETTIA. A well known decorative plant. Very brilliant and striking. Does well in Florida out of doors. Double flowered, red, each 25 cents in

pots. White, new and rare, \$1.00 each.

SHADE TREES GREVILLEA ROBUSTA, Australian Silk Oak. A fern-leaved tree. Rapid grower. Very fine for street or shade tree. Evergreen. It is as hardy as an orange tree. It grows over 100 feet tall. It is much used as a decorative house plant. Makes a magnificent pot plant. Shipped in pots. Strong plants, 10 cents each, 1 to 11/2 foot size, 15 cents;

2 to 3 foot size, 25 cents.

EUCALYPTUS. There are many varieties of this tree, but the Robusta or Swamp Mahogany, is the best for Florida, although some 80 sorts are listed in Australian catalogs. They are very fine street or shade trees. Grow exceedingly fast. This variety resembles a rubber tree, as the leaves are very broad and thick, and hence, it makes more shade than the narrower leaved sorts. For forest plantings, set 2 to 12 feet apart each way. Make a fine wind-break around a citrus grove. Discovery of a specific for cerebro-spinal meningitis was announced today, Aug. 11, 1915, by Dr. Richard Bull, a director of the bacteriological laboratory of the University of Melbourne. Dr. Bull stated that eucalyptus would destroy the germ. The medicinal properties of the oil from leaves from the eucalyptus tree have long been recognized. It has been used in treatment of diseases of the lungs and bronchitis and employed as an antiseptic.

Shipped in pots, 1 to 2 foot size, 15 cents; 2 to 3

foot size, 20 cents; 3 to 5 foot size, 25 cents.

CALIFORNIA PEPPER TREE, Schinus molle. Very popular in Southern California. Has evergreen fern-like foliage, and almost covered with loose clusters of bright red berries, which hang on a long time. A very rapid grower. I have grown them five feet in a little over a year from seed, and that on light, high sandy soil, with no special care, cultivation or fertilizer. Makes a splendid shade and ornamental tree. Alternately planted with eucalyptus robusta, there is a splendid contrast, and this street planting is used by the mile in California, with most effective results. The pepper tree is new in Florida. They cannot be obtained elsewhere shipped in pots, which is the way I send them out. It is rather hard to get them to grow, if shipped otherwise. 25, 35 and 50 cents each, according to size.

UMBRELLA CHINA TREE. A very shapely tree, giving a dense shade. Very rapid grower.

Shipped in pots, 20 cents each.

CAMPHOR TREE. Exceedingly valuable in Florida and the Gulf states for gum and shade. Is being grown in Florida on a large scale for gum. For this set in rows about 12 feet apart, and 6 to 8 feet apart in the row. Also fine for shade and ornamental tree. Foliage is handsome. Makes a large, handsome tree. Is also used for hedges, and for this is set 15 to 18 inches apart. 10 cents each.

LAWN GRASS

It is an easy matter to have the finest sort of a lawn in South Florida by the use of St. Lucie grass. The roots are set about a foot apart and the ground left smooth. Should be watered until established, unless set out during the rainy season. After becoming once established, will stand very dry, hot weather without damage. Cold does not hurt it, such as we have here. It can never become a pest, like Bermuda grass, as it roots from runners above ground, like strawberries. It will grow in most any sort of soil, even in very poor, sandy soil. It is cut with a lawn mower, just like blue grass, and in fact, looks very much like blue grass. It is of a richer, darker green than Bermuda grass. In comparison, the broad leaved St. Augustine grass is pale and yellow. Do not trim it too short in dry, hot weather. Set the cutting bar of your mower high, and if you cannot do that, wrap a rope about the size of a clothes line around the wooden roller which will raise the cutting bar. This grass will also make a fine pasture all the year round. One cow should have plenty of pasture on an acre of this grass, when once established. For pasture, when the ground is wet, and soil in good condition, throw a shallow furrow, 3 or 4 inches deep, place the grass roots a foot or so apart in these so that the roots can be covered by a similar furrow, leaving the grass blades out. The furrows can be 2 or 3 feet apart. It will soon make a solid sod. Two bushels of roots will plant about 40 by 80 feet, for lawn, and several times as much for pasture. Do not use stable fertilizer, as it is apt to introduce crab grass and sand spurs. Two bushel sack for \$1.00. Must be sent by express. Small lots by mail, rost paid, 25 cents. This is a grass that fills the bill for a lawn grass in South Florida. It makes a pasture superior to Bermuda

ORNAMENTAL GRASS. I have a very handsome wide leaved ornamental grass. This forms a large clump and grows quickly. It has white, feathery plumes, a little like Pampas grass. 10 cents each.

Also another Ornamental Grass, similar to the above, but with narrower leaves. 10 cents each.

ST. AUGUSTINE GRASS. Used for lawns, and is especially good for shadv places. The roots are set like St. Lucie Grass. Bushel \$1. 100 cuttings, 40 cents by mail postpaid.

SHIPMENTS made by Southern Express or by Atlantic Coast Line freight, unless otherwise noted, depending on the time of year and the size of the order. Everything free on board at express or freight station. No charge for packing.

TERMS. If stock is ordered in advance of the shipping season, and is held for future delivery, 20%

of the purchase price must accompany the order in all cases. After this payment is made, the stock is reserved for you, but full payment is to be made by December 15th, any season. No trees will be held over that date, unless paid for in full, or an extension arranged for. The full amount of the order must be paid before the treees leave the nursery. On reserved trees, if the balance of the purchase price is not paid by Dec. 15th, or arrangements made for an extension, the amount paid when the order is given is forfeited.

CONTRACTING FOR TREES. This is the sensible way to buy trees. You should always order the trees in the Spring that you expect to plant the coming Fall or Winter. You can then have your trees grown any shape or form, whether tall or low, branched and stocky, and you will always be sure to get one-year or two-year buds and have them ready for you when you are ready to plant. These orders should be placed by the first of February, if possible, in order to give ample time to properly develop the trees and have them ready when you are ready to plant.

ORDER EARLY. Too many people wait till the last minute to order trees, and then find it necessary to buy trees from three or four nurseries in order to get what they want to plant. We begin to book advance orders as soon as the shipping season is past, for trees to be delivered the next season. Often the best stock of some of the best varieties is sold out on advance orders before the shipping season opens, and those who wait are disappointed. Order early and get just what you want in both variety and stock.

OUR RESPONSIBILITY. I refer to the Tampa. Florida, offices of either Dun or Bradstreet. But I cannot be responsible for your mistakes in planting. I do not know what treament the trees may receive at your or your laborers' hands. Therefore, when the trees reach you in good condition, my responsibility ends. If your order is small, and is packed in bales, and is long delayed in transit, the claim for loss or damage should be made against transportation companies. If any such loss occurs, I will help you in any way I can to make recovery from them. Be sure to always retain your bill of lading and get proper statement from your agent as to your loss, showing date of receipt. You can then order more trees with full confidence that you will be reimbursed for your loss. But there is very seldom any trouble with delayed shipments.

SHIPPING SEASON. Trees are best shipped in the dormant season, November first to about the last of February. Citrus trees are evergreens, and can be planted at any time, but during the growing season I ship only at purchaser's risk.

CLAIMS. All claims must be made within ten

days after the receipt of trees.

LAKE HAMILTON NURSERIES H. R. Mosnat.